WORLD HERITAGE NOMINATION — IUCN SUMMARY

475: PARC NATIONAL DU MANOVO-GOUNDA-ST FLORIS (CENTRAL AFRICAN REPUBLIC)

Summary prepared by IUCN (April 1988) based on the original nomination submitted by the Government of the Central African Republic. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

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1. LOCATION:

The area occupies most of the eastern end of Bamingui-Bangoran province in the north of the country, on the international border with Chad. The western boundary is about 40km east of Ndéle and the road from Ndéle to Birao runs through the park. 8°05'-9°50'N, 20°28'-22°22'E

2. JURIDICAL DATA:

The Parc national Manovo-Gounda-St Floris was declared on 17 May 1979 with a total area of 1,740,000ha, including the previously designated St Floris National Park and the former Safarafric hunting/tourism concession. Part of the area was first designated as Oubangui-Chari National Park (13,500ha) on 10 December 1933 and renamed Matoumara National Park in 1935. The area was subsequently redefined on 27 July 1940 as St Floris National Park with an area of 40,000ha, enlarged to cover 100,700ha in 1960, and again to cover 277,600ha in 1974. The area previously designated St Floris National Park forms the northern region of the current park.

3. IDENTIFICATION:

The park comprises three main zones, the flood plain of the Bahr Aouk and Bahr Kameur rivers in the north, the Massif des Bongo in the south, and a gently undulating transitional plain between. The lowland areas, which are seasonally flooded, have fine, deep, alluvial soils, although drainage in these areas may be quite poor. This gives way to a flat plain with coarse, generally ferruginous and well-drained soils, in which some areas, particularly the depressions, have developed a lateritic or ironstone shield, on which woody vegetation is noticeably sparse or absent. The massif, which is separated from the plain by an escarpment, is chiefly composed of sandstone and is highly dissected. Five major rivers run down from the massif through the park to the Bahr Aouk and Bahr Kameur, and the park includes the complete basins of three of these. The climate is tropical, semi-humid Sudano-Guinean, with a mean annual rainfall of between 950 and 1700mm, mainly falling between June and November. There is only one rainy season, alternating with a hot dry season. Rainfall is much higher on the upland areas, while maximum temperatures can be much higher in the flood plain to the north.

The predominant vegetation type over much of the park is Soudano-Guinean woodland savanna. Terminalia laxiflora and Isoberlinia wooded savannas cover extensive areas of the upland plains, with Isoberlinia savanna generally lying further to the south. These savannas are interspersed with other less common types (including Combretum scrub or "ironstone meadow" where the ironstone pan is close to the surface), and form a mosaic distribution related to edaphic and topographic features. Dry forest occurs along the edges of the plains, particularly along the Gounda and Koumbala Rivers, and in small islands within the plains.

The lowland areas are subject to both flooding and fire, and this is reflected to some extent in the vegetation. Two other types of woodland/woodland savanna occur within the lowland areas, impeded drainage tree savanna along sections of the river valleys, and a more mixed woodland/woodland savanna around seasonal streams and other isolated low points. The most heavily flooded areas support communities of perennial grasses, sedges and annual forbs, while trees and shrubs are confined to patches of higher ground. Further to the south on the higher ground are found bamboo open savanna, and woodlands associated with the hilly areas of the river sources.

A wide range of animal species has been recorded within the park, although most research has concentrated on the St Floris region. Several animal species of particular conservation concern occur: black rhinoceros Diceros bicornis (now reduced to fewer than 10 individuals), elephant Loxodonta africana, red-fronted gazelle Gazella rufifrons (here at its southern limit), leopard Panthera pardus, cheetah Acinonyx jubatus, hunting dog Lycaon pictus, shoebill Balaeniceps rex and crocodile Crocodylus niloticus. There are large seasonal populations of pelican Pelecanus (Pelecanus onocrotalus and P. rufescens) and marabou stork Leptoptilos crumeniferus, and the park may be fairly important for both waterbirds and shorebirds, particularly the flood plains to the north.

4. STATE OF PRESERVATION/CONSERVATION:

Management of the area is the responsibility of the Société MANOVA S.A., following agreement between the Société and the government, and the parc is the best protected area in the country. Most management effort goes into anti-poaching (which recieves support from the army) and the prevention of grazing within the park boundaries. There is no current management plan.

Over a period of several years, FAO has worked within the Central African Republic with the aim of improving wildlife management. As part of this work a number of recommendations for improving the management of the area have been made. This is also true for a number of subsequent projects within the area.

The most significant human impact on the park would appear to be professional poaching of large mammals, particularly of rhinoceros and elephant. Fire, whether initiated by grazers, poachers, hunters or guards, is also a serious concern. Poachers, most of whom reportedly enter the park from Chad and Sudan, have recently begun to use automatic weapons, and numbers of several species have been reduced in the area due to poaching pressure. The situation is reported to be deteriorating.

Meanwhile the equipment available for park staff is inadequate, with only one vehicle and a few arms, and park staff consists of only the conservator and five guards (although this is supplemented by army personnel for anti-poaching work, as well as by concessionaire staff).

5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST:

The nomination for the Parc national Manovo-Gounda-St Floris, as presented by the Government of the Central African Republic, provides the following justification for designation as a World Heritage property:

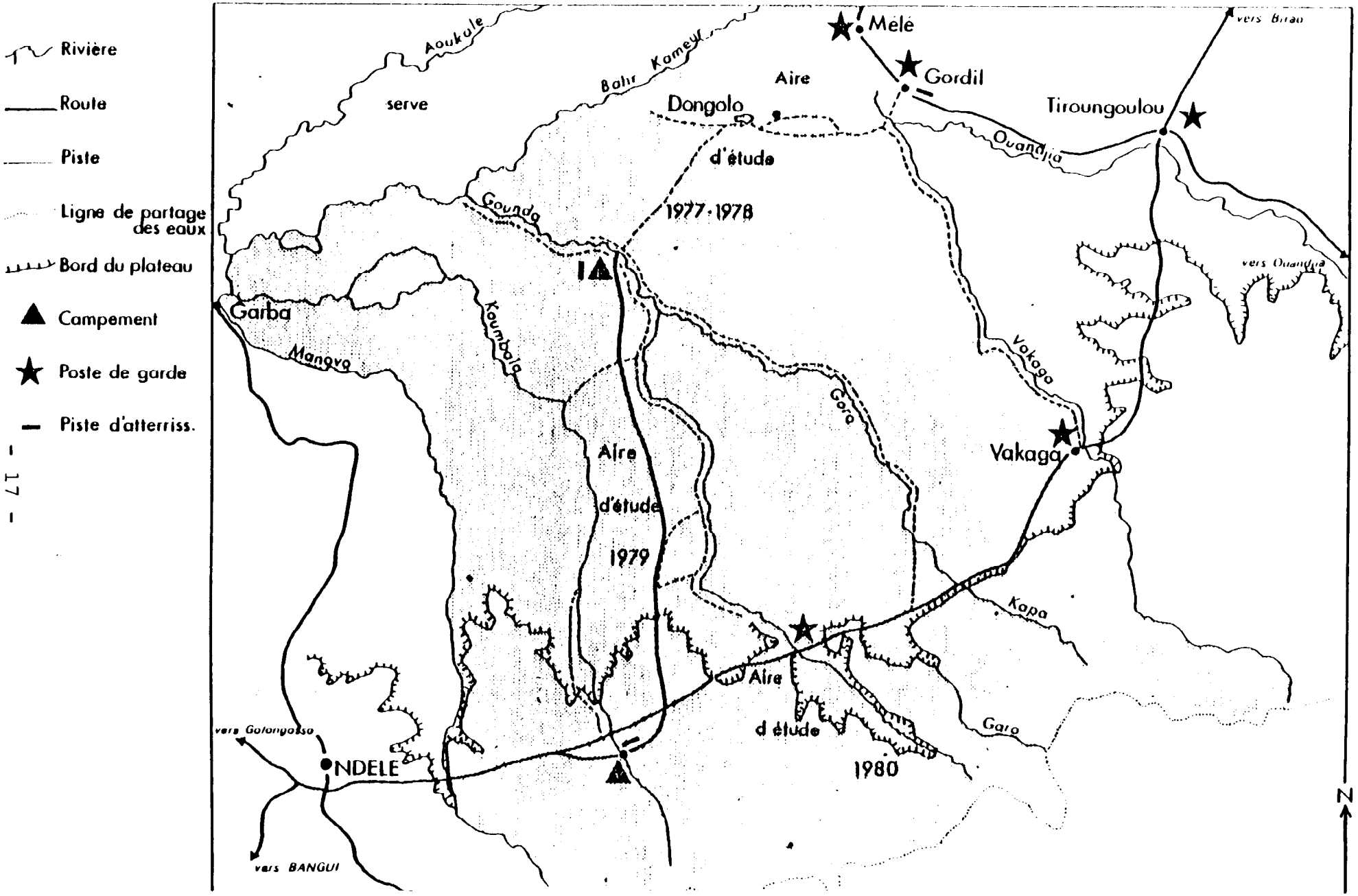
b) Natural property

(iii) Superlative natural formations. The area of the park is large enough to include the entire basins of three rivers, and significant areas of a range of biotopes including grassy floodplains, a variety of wooded savanna types, and woodlands, as well as the wetlands associated with the rivers, and the rugged sandstone Massif des Bongo.

The area is also large enough to support viable populations of a whole range of species typical of this part of Africa, and includes populations of species of both West and East African origin.

(iv) Habitat of rare or threatened species. At least eight species of conservation concern occur within the park, which provides a considerable area for their support.

PARC NATIONAL MANOVO, GOUNDA, ST FLORIS



WORLD HERITAGE NOMINATION - IUCN TECHNICAL EVALUATION

475 MANOVO-GOUNDA-ST.FLORIS NATIONAL PARK (CENTRAL AFRICAN REPUBLIC)

1. DOCUMENTATION

i) IUCN Data Sheet

ii) Additional literature consulted: IUCN/UNEP 1987, Review of the Protected Areas System of the Afrotropical Realm

iii) Consultations: T. McShane, G. Sournia, P. Portas, E. Pironio, J.P. Thomassey, N. Donnet

iv) Site visit: J. Sayer IUCN (June 1988); T. McShane WWF

2. COMPARISON WITH OTHER AREAS

Manovo-Gounda-St. Floris National Park (PNMGF) is the largest savanna park in west and central Africa covering 17,400 sq km. The park comprises portions of the Guinea-Congolian Transition Zone, the Sudanian Regional Center of Endemism and the Sahelian Transition Zone on a gradient from south to north. PNMGF includes important examples of dry forest, which is under severe threat from fire throughout its range and gallery forest. No other protected area in the west and central African savanna zone covers such a broad range of habitat types. Due to PNMGF's unique location, it serves as an important transition zone for flora and fauna from east and west Africa and, through the gallery forest corridors, species from the tropical forest zone to the south.

Comparable sites in West Africa include Comoe National Park, Côte d'Ivoire, and Niokolo-Koba National Park, Senegal, both currently on the World Heritage List; Bamingui-Bangoran National Park, Central African Republic, a listed Biosphere Reserve; and W National Park, Niger, Burkina Faso and Bénin, and Penjari National Park, Bénin, currently unlisted. Other savanna parks exist, but are smaller and contain an impoverished fauna.

PNMGF compares very favourably with both west African savanna World Heritage Sites. The park covers a greater area, has as diverse a flora and range of mammal species. The park comprises a greater range of habitats and more diverse flora and fauna than the Bamingui-Bangoran Biosphere Complex. PNMGF is larger and more diverse than any of the remaining parks occupying the same west and central African biome.

While important savanna ecosystems have been included on the World Heritage List for southern, eastern and western Africa, the northern central African savannas are conspicuously absent. PNMGF is biologically the most important example of this ecosystem.

3. INTEGRITY

Human population density around PNMGF is very low and there is little threat posed by demands for land. The human history of the region is predominately influenced by its position on the Islamic frontier. Early in the century, slave raiders depopulated the north-eastern part of present day Central African Republic. The effects of this activity are still apparent today.

Agriculture is sparse and limited around the park boundaries. PNMGF is, for the most part, surrounded by faunal reserves and managed hunting zones which provide a buffer to certain land uses. The nearest population centres are N'délé to the west, Quadda to the south, Birao to the east and Haraz-Mangueigne, Chad, to the north.

The park was put on IUCN's Register of Threatened Protected Areas of the World in 1986. The primary threats to the park come from two main factors:

- Illegal Hunting. Commercial hunting of elephant, black rhino and giraffe for wildlife products is well documented. It is estimated that 75% of the park's elephant population was lost between 1981 and 1984. Black rhino have been reduced from the 100's to the low 10's and the giraffe population has declined. Hunting also continues on a large scale for bush meat which is transported to towns in Sudan, Chad and the Central Africa Republic.

During a recent field inspection (January 1988), evidence of illegal hunting was widespread. This included the sighting of camels and hunters (thought to be Sudanese) operating on the Gounda River in the centre of PNMGF. Further investigations indicated as many as 25 camels may have been in the area and over 50 buffalos and 100 kobs (Kobus Kob) had been killed. Indications were that automatic weapons were being used. The French military was alerted to the presence of the Sudanese and responded by transporting CAR military to Gordil on the park's eastern boudary resulting in the capture of 20 camels and 42 sacks of meat.

Discussions with various people working in PNMGF indicate that widespread hunting and reductions in animal populations continue. The civil wars in neighbouring Chad and Sudan have brought many weapons into the area and Chadians, Sudanese and Central Africans have been implicated in these activities.

- Illegal Grazing. Most illegal grazing is due to livestock from the Nyala region of Sudan and from Chad. In general, livestock enter the St. Floris sector of the park in late December and early January and depart in May, using the area as a dry season range. The presence of livestock in the St. Floris sector is principally due to the combined effects of the drought and overgrazing to the north. The presence of cattle has generally gone uncontested. Perennial grasses are being changed to annuals and herbs indicating a lowering of productivity. Rinderpest was last recorded in 1983/84 with mortality recorded among buffalo, giant eland and warthog. Herders also engage in illegal hunting. Coordinated efforts between the Ministries of Eaux et Forêts and Elevage in Sudan and CAR are necessary to reroute herds to other well-watered pastures outside of the park area.

The southern part of PNMGF is crossed by National Route 8 linking N'délé with Birao and Sudan. This route, though controlled at the park boundaries, allows easy access. Some form of control and monitoring must be rigourously exercised as illegal hunting and transport of wildlife products is regularly associated with transit on this route. It has been proposed that this route be rerouted by the EEC/FED project.

The legislation creating PNMGF is well documented and provides adequate protection. Though legislation exists, the park currently experiences limited and sporadic effective management and government support in terms of manpower and equipment is minimal. There is a conservator and five park guards assigned to manage the entire 17,400 sq km area. Lack of transport and other support has confined them to Manovo Camp at the park's western entrance. There is little indication of further direct input from the Ministère des Eaux, Forêts, Chasses, Pêche et Tourisme, the agency responsible for conservation of the park.

There has been past anti-poaching support from both the French and CAR military, however, this has been sporadic and of short-term value. There is no regular military presence in the area and under whose command they come when discharging park duties is not clear. The sustainability of such actions is a cause for concern.

Some management authority and responsibility for tourism and controlled hunting in the park has been vested in a private company, Manovo, S.A., which has a 20 year operating concession. The tourism infrastructure is currently being upgraded to an international standard and a sizeable investment is being made. Limited management activities are practiced and consist primarily of grading park tracks, burning to improve game viewing and some anti-poaching and anti-livestock operations. There are approximately 10 guards employed by the organization for this last purpose. There is little indication that these actions are coordinated with the government agency responsible for PNMGF.

EEC/FED is also beginning a large project ($27 million) centered on the park. Objectives of this project include road/access improvement, research and infrastructure development (provision of housing and staff). Anti-poaching activities will be undertaken by CAR staff associated with this project. The initial phase of this project is four years with a planned extension of six years. Given the current state of management of PNMGF, a ten year project would be the minimum time required to ensure some level of sustainability. Coordination between this project and Manovo, S.A. is currently lacking and is necessary if a sound management programme is to be realised.

Past conservation projects in PNMGF (UNDR/FAO,FAC,WWF,AWF) have produced few sustainable results contributing to improved management capabilities. The FAC/Peace Corps project, however, did produce valuable baseline ecological data. If the current projects are to be sustainable in the long-term, a number of institutional changes amongst the government and the current projects themselves are necessary.

4. ADDITIONAL COMMENTS

The nomination accurately outlines the situation in PNMGF by highlighting its biological importance while documenting the problems (illegal hunting, grazing, etc.). The problems of park management, of which illegal hunting and grazing are symptoms, are not well described and have been presented in greater detail in this evaluation.

5. EVALUATION

From a biological point of view, PNMGF occupies arguably the most important savanna ecosystem in west and central Africa and contains threatened floral elements (dry forests and extensive gallery forests) and an extremely diverse fauna. It is the largest savanna park in the region. It is an important link in the system of African savanna parks stretching from east to west Africa across the northern savanna belt. It is an interesting example of "crossroads" where species distributions and movements from the east and west African savanna communities and the forest communities to the south have come together. It also offers an important baseline to monitor environmental changes taking place throughout the Sahelian and Sudanian regions due to drought and overgrazing. PNMGF, therefore, qualifies for World Heritage listing under Criteria (ii) and (iv).

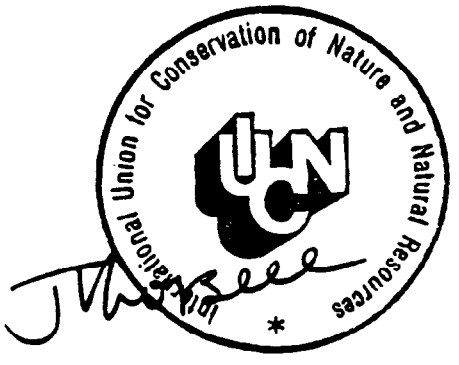
Management of the park must be upgraded, however, if it is to maintain its long-term viability. The current projects focusing on tourism and infrastructure development offer this opportunity but a more active role is required from government.

6. RECOMMENDATION

As outlined above, there are serious concerns over the integrity of the park despite its meeting two criteria for a natural World Heritage site. In addition, the policy of the use of the area by a private concessionnaire is not clear. Certainly the integrity of the park has strong prospects for improvement with the EEC grant but this has yet to be implemented.

IUCN recommends that consideration of this nomination be deferred pending (1) clarification of the role of the private company operating in the reserve, and (2) reports are received on the progress in implementing the EEC project to restore the park's integrity and improve its management regime.

2163J May 1988



CENTRAL AFRICAN REPUBLIC

NAME Parc national Manovo-Gounda-St Floris

MANAGEMENT CATEGORY II (National Park)
X (World Heritage Site - Criteria iii, iv)

BIOGEOGRAPHICAL PROVINCE 3.04.04 (West African Woodland/savanna)

GEOGRAPHICAL LOCATION The area occupies most of the eastern end of Bamingui-Bangoran province in the north of the country, on the international border with Chad. The boundaries on three sides of the park are formed by the international border and the eastern and southern borders of the province, while the western boundary is mainly marked by the Manovo River. The international border runs along the Bahr Aouk River while the provincial borders run along the Bahr Kameur and Vakaga Rivers, and the ridge of the Massif des Bongo. The western boundary is about 40km east of Ndle and the road from Ndle to Birao runs through the park. 8º05'-9º50'N, 20º28'-22º22'E

DATE AND HISTORY OF ESTABLISHMENT The Parc national Manovo-Gounda-St Floris was declared on 17 May 1979 with a total area of 1,740,000ha, including the previously designated St Floris National Park and the former Safarafric hunting/tourism concession. Part of the area was first designated as Oubangui-Chari National Park (13,500ha) on 10 December 1933 and renamed Matoumara National Park in 1935. The area was subsequently redefined on 27 July 1940 as St Floris National Park with an area of 40,000ha, enlarged to cover 100,700ha in 1960, and again to cover 277,600ha in 1974. The area previously designated St Floris National Park forms the northern region of the current park. Inscribed on the World Heritage list in 1988.

AREA 1,740,000ha; contiguous to the Rserve de faune de l'Aouk-Aoukal (330,000ha) to the north, and the Rserve de faune de l'Ouandjia-Vakaga (130,000ha) to the east. The proposed Rserve de faune du Bahr Oulou lying between these two reserves would also be contiguous (although there are now doubts that this area will be designated).

LAND TENURE The park is public property, but an agreement between the government and the Socit MANOVO S.A. signed in 1984 devolves responsibility for both management of the park and exploitation of its tourist potential to the society. This agreement, which is renewable, lasts for 20 years.

ALTITUDE 400-800m

PHYSICAL FEATURES The park comprises three main zones, the flood plain of the Bahr Aouk and Bahr Kameur rivers in the north, the Massif des Bongo in the south, and a gently undulating transitional plain between. The lowland areas, which are seasonally flooded, have fine, deep, alluvial soils, although drainage in these areas may be quite poor. This gives way to a flat plain with coarse, generally ferruginous and well-drained soils, in which some areas, particularly the depressions, have developed a lateritic or ironstone shield, on which woody vegetation is noticeably sparse or absent. The massif, which is separated from the plain by an escarpment, is chiefly composed of sandstone and is highly dissected. Five major rivers run down from the massif through the park to the Bahr Aouk and Bahr Kameur. These are the Vakaga (on the eastern boundary), Goro, Gounda, Koumbala and Manovo (on the western boundary), and the park includes the complete basins of three of these. However, flow may be interrupted towards the end of the dry season, and the flow may actually only reach the Bahr Aouk and Bahr Kameur during the wettest months.

CLIMATE The climate is tropical, semi-humid Sudano-Guinean, with a mean annual rainfall of between 950 and 1700mm, mainly falling between June and November. There is only one rainy season, alternating with a hot dry season. Rainfall is much higher on the upland areas, while maximum temperatures can be much higher in the flood plain to the north.

VEGETATION The predominant vegetation type over much of the park is Soudano-Guinean woodland savanna which can be divided into five types: Terminalia laxiflora wooded savanna with Crossopteryx febrifuga and Butyrospermum parkii; Isoberlinia doka and Monotes kerstingii woodland; Pseudocedrela kotschyi and Terminalia macroptera woodland; mixed lowland woodland or wooded savanna; and Anogeissus leiocarpus and Khaya senegalensis. These are described by Barber et al. (1980) and Buchanan and Schacht (1979). The Terminalia laxiflora and Isoberlinia wooded savannas cover extensive areas of the upland plains, with Isoberlinia savanna generally lying further to the south. These savannas are interspersed with other less common types, including Combretum scrub or "ironstone meadow" where the ironstone pan is close to the surface, and form a mosaic distribution related to edaphic and topographic features. The Terminalia savanna, in particular, is heavily used by the larger mammals, such as elephant, during the dry season, while the understorey of the Isoberlinia savanna is less well developed. Dry forest of Anogeissus leiocarpus and Khaya senegalensis occurs along the edges of the plains, particularly along the Gounda and Koumbala Rivers, and in small islands within the plains.

The lowland areas are subject to both flooding and fire, and this is reflected to some extent in the vegetation (although Anogeissus leiocarpus is not fire resistant, which may, together

with low rainfall, be contributing to its decline). Both other types of woodland/woodland savanna occur within the lowland areas. The Pseudocedrela kotschyi-Terminalia macroptera woodland (or impeded drainage tree savanna) is found along sections of the river valleys where they are seasonally flooded and the topography is flattest. In other areas these species co-dominate with Terminalia laxiflora, Combretum glutinosum and Anogeissus leiocarpus to form a more mixed woodland/woodland savanna around seasonal streams and other isolated low points. Both types are heavily used by ungulates in particular during the dry season. The most heavily flooded areas support communities of perennial grasses, sedges and annual forbs, while trees and shrubs are confined to patches of higher ground. Predominant species include perennial grasses such as Vossia cuspidata, Echinochloa stagnina, Jardinea congoensis, Setaria anceps, Hyparrhenia rufa, and Eragrostis sp., with relative distributions depending on duration and depth of seasonal flooding.

Further to the south on the higher ground are found bamboo open savanna, and woodlands associated with the hilly areas of the river sources.

FAUNA Several faunal studies have been conducted within the park, including those of Spinage (1976), Buchanan and Schacht (1979), and Barber et al. (1980), as well as the ariel studies reported on by Loevinsohn et al. (1978) and Loevinsohn (1977). However, in each case the reports mainly cover the northern area of the park including St Floris and the adjacent areas.

Several species of particular conservation concern occur within the park: black rhinoceros Diceros bicornis, which is now reduced to fewer than 10 individuals (CAR, 1987), elephant Loxodonta africana, which may number 2,000-3,000 individuals, leopard Panthera pardus, cheetah Acinonyx jubatus, hunting dog Lycaon pictus, shoebill Balaeniceps rex and crocodile Crocodylus niloticus. Unfortunately, poaching still has a significant effect on numbers of least rhinoceros and elephant, and has in the past affected both leopard and crocodile. Red-fronted gazelle Gazella rufifrons is also found within the park (the only species of gazelle) at its southern limit.

Within the St Floris region, the most abundant large mammal would appear to be kob Kobus kob, with nine other fairly abundant ungulates including the duiker Sylvicapra grimmia, waterbuck Kobus ellipsiprymnus, hartebeest Alcelaphus buselaphus, oribi Ourebia ourebi, topi Damaliscus lunatus, reedbuck Redunca redunca, buffalo Syncerus caffer, warthog Phacochoerus aethiopicus and hippopotamus Hippopotamus amphibius. The most common primate recorded by Barber et al (1980) was baboon Papio anubis, with lower number of patas and tantalus monkey (Cercopithecus patas and C. tantalus), and with colobus monkey Colobus guereza found in low numbers in the dry forest. Other

conspicuous or noteworthy large mammals include roan antelope Hippotragus equinus, lion Panthera leo, giraffe Giraffa camelopardalis, and giant eland Taurotragus derbianus, and animals which occur in the area but which are rather less common include golden cat Felis aurata, red-flanked duiker Cephalophus rufilatus and yellow-backed duiker C. sylvicultor. Few nocturnal species have been studied, but serval Felis serval is thought to be common, as are lesser galago Galago senegalensis. Bush pig Potamochoerus porcus, de Brazza's monkey Cercopithecus neglectus, and greater white-nosed monkey Cercopithecus nictitans have been discovered here since 1980, and Buchanan has also recorded rock hyrax Procavia ruficeps more than 200km west of the nearest known population (Spinage, 1981).

Some 320 species of birds have been identified, with at least 25 species of raptor including bataleur Terathopius ecaudatus, and African fish eagle Cumcuma vocifer. There are large seasonal populations of pelican Pelecanus (Pelecanus onocrotalus and P. rufescens) and marabou stork Leptoptilos crumeniferus, and the park may be fairly important for both waterbirds and shorebirds, particularly the flood plains to the north. Ostrich Struthio camelus seem fairly common on the plains, moving to woodland areas to lay their eggs. Several species of bee-eater and kingfisher are present along the rivers.

CULTURAL HERITAGE None

LOCAL HUMAN POPULATION Most of the area has been sparsely inhabited for long periods as an unclaimed no-man's-land between opposing sultanates. However, nomads from Chad and to some extent Sudan enter the park during the dry season, and have done for many years. Agriculture is sparse and limited around the park boundaries.

VISITORS AND VISITOR FACILITIES There are few facilities for visitors, although it is envisaged that the infrastructure will be improved, presumably as a result of the agreement between the Government and the Socit MANOVO S.A. Access to the southern part of the park is relatively easy.

SCIENTIFIC RESEARCH AND FACILITIES An ecological survey of the St Floris National Park was carried out by US Peace Corps biologists in 1977 and 1978. The report of this survey (Barber et al., 1980) includes both general descriptions and species lists, and goes on to make a range of recommendations. Further research was carried out in the newly-declared park in 1979 to extend much of the work to cover also the Gounda-Koumbala region (Buchanan and Schacht, 1979). A four year study was begun in 1981 (also carried out by Peace Corps biologists) on the ecology of the elephant in the park, with special reference to diet, distribution and the impact of poaching (WWF/IUCN Project 3019). Other activities carried out by the research team included

observations on poaching and other illegal activities; a botanical survey; notation of species considered rare or previously unidentified in the park, and monitoring rhinoceros activity. An air count of larger mammals in parts of the park was carried out in 1978 (Loevinsohn et al., 1978) as part of a larger FAO project to improvement management of fauna in the north of the country. This work followed a series of earlier analyses reported on by Loevinsohn (1977). A research centre is planned at Camp Koumbala.

CONSERVATION MANAGEMENT The park is reported to be the best protected area in the country (CAR, 1987), but suffers from shortage of manpower and equipment. Most management effort goes into anti-poaching and the prevention of grazing within the park boundaries. Some army support is provided for anti-poaching work, but this has been sporadic and of short term value. Over a period of several years, FAO worked within the Central African Republic with the aim of improving wildlife management. As part of this work, Spinage (1976) made a preliminary survey of the St Floris National Park and put forward a number of recommendations for improving the management of the area. Recommendations have also been made by a series of subsequent studies (e.g. Temporal, 1985; Barber et al., 1980) and up to 1985, development was supported by the Fonds d'Aide et Coopration. Management of tourism within the park, and hunting in the buffer zones, is the responsibility of the Socit MANOVA S.A., following a 20 year agreement between the Socit and the government. Sizeable investment is being made to improve the tourism infrastructure. The Socit also carries out limited park management activities (grading park tracks, burning to improve game-viewing), but it is unclear to what extent this is coordinated with the actual park management.

EEC/FED is beginning a large project (US$27 million) centred on the park, the objectives of which include improvement of access, research and infrastructural development (staff and facilities). The initial stage of the project is for four years, with a planned extension of six years.

MANAGEMENT PROBLEMS The most significant human impact on the park would appear to be professional poaching of large mammals, particularly of rhinoceros and elephant. Poachers, most of whom enter the park from Chad and Sudan, have recently begun to use automatic weapons, and numbers of several species have been reduced in the area due to poaching pressure. The situation is reported to be deteriorating. For example, numbers of elephants were reduced by 75% between 1981 and 1984, as few as 10 rhinoceros remain, and the giraffe population has declined. Meanwhile staff numbers are very low for the size of park, and the equipment available for staff is inadequate, with only one vehicle and a few arms. Two other factors cause concern, fire (whether initiated by grazers, poachers, hunters or guards) and

grazing. Most illegal grazing occurs during the dry season, with animals moving from the Nyala region of Sudan, and from Chad. This is having an effect on the composition of grasslands, with perennial species giving way to annuals and herbs.

STAFF A conservator and five guards, supplemented on occasions by army personnel for anti-poaching work, and concessionaire staff (which employs 10 people on management oriented tasks).

BUDGET No information

LOCAL ADMINISTRATION Conservator is based at Gounda-Pont.

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DATE Revised April 1988, updated November 1988

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DESIGNATION POUR LA LISTE DU PATRIMOINE MONDIAL - RESUME PREPARE PAR L'UICN

475: PARC NATIONAL DU MANOVO-GOUNDA-ST FLORIS (REPUBLIQUE CENTRAFRICAINE)

Résumé préparé par l'UICN (avril 1988) d'après la désignation d'origine soumise par le gouvernement de la République centrafricaine. L'original et tous les documents présentés à l'appui de cette désignation seront disponibles pour consultation aux réunions du bureau et du comité.

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1. SITUATION:

Occupe la plus grande partie de l'extrémité orientale de la province de Bamingui-Bangoran, dans le nord du pays, à la frontière tchadienne. La limite occidentale est située à quelque 40km, à l'est de N'délé; la route N'délé-Birao traverse le parc. 8°05'-9°50'N, 20°28'-22°22'E.

2. DONNEES JURIDIQUES:

Le Parc national du Manovo-Gounda-St Floris a été créé le 17 mai 1979, avec une superficie totale de 1 740 000 ha, comprenant l'ancien Parc national de St Floris et l'ancien domaine de chasse et de tourisme de la Safarafric. Une partie de la région, désignée Parc national de l'Oubangui-Chari (13 500 ha) le 10 décembre 1933, a été rebaptisée Parc national de Matoumara en 1935. Elle a été redéfinie le 27 juillet 1940 pour devenir le Parc national de St Floris, avec une superficie de 40 000 ha, élargie à 100 700 ha en 1960, puis à 277 600 ha en 1974. La région autrefois désignée sous le nom de Parc national de St Floris constitue le nord du parc actuel.

3. IDENTIFICATION:

Le parc comprend trois zones principales: les plaines d'inondation des rivières Bahr Aouk et Bahr Kameur, au nord, le massif des Bongo au sud, et une plaine de transition légèrement vallonnée entre deux. Les zones de basse altitude, inondées saisonnièrement, se caractérisent par un sol fin, profond et alluvial bien que le drainage y soit souvent très faible. Vient ensuite une plaine plate au sol grossier, généralement ferrugineux et bien drainé, dont certaines zones, notamment les dépressions, forment un bouclier latéritique ou ferreux, où la végétation arborisée est éparse ou même inexistante. Le massif, séparé de la plaine par un escarpement, est essentiellement argileux et très découpé. Cinq rivières importantes descendent du massif à travers le parc, en direction des rivières Bahr Aouk et Bahr Kameur, et leurs bassins versants respectifs se trouvent tous dans le parc. Le climat est tropical, soudano-guinéen semi-humide, avec des précipitations annuelles variant entre 950 et 1700mm, surtout entre juin et novembre. Il n'y a qu'une seule saison des pluies, alternant avec une saison chaude et sèche. Les précipitations sont plus élevées sur les plateaux, et les températures maximales sont enregistrées dans la plaine d'inondation, au nord.

La végétation prédominante dans la plus grande partie du parc est la savane arborisée de type soudano-guinéen. On trouve de grandes étendues de savane arborisée de Terminalia laxiflora et d'Isoberlinia dans les plaines d'altitude, la savane d'Isoberlinia étant plus courante dans le sud. Ces savanes sont parsemées d'autres types de plantes, moins communes (notamment l'arbuste Combretum, dans les zones où le minerai de fer affleure), et forment une mozaïque correspondant à la topographie et aux caractéristiques édaphiques. La forêt sèche est notamment développée en bordure des plaines, surtout le long des rivières Gounda et Koumbala, et se présente aussi en petites touffes, sur les plaines.

La zone de basse altitude est exposée aux inondations et aux feux de brousse ce qui se réflète, dans une certaine mesure, au niveau de la végétation. Il y a deux autres types de bois/savane arborisée à proximité des cours d'eau saisonniers et d'autres points isolés de basse altitude. Les zones les plus inondées abritent des communautés d'herbe pérenne, de laîche et de plantes herbacées annuelles, alors qu'arbres et arbustes sont limités à des peuplements clairsemés dans les zones plus élevées. Plus au sud, dans les régions élevées, on trouve une savane de bambou ouverte et des bois dans les collines où les rivières prennent leur source.

Un grand éventail d'espèces animales a été répertorié dans le parc, la plupart des recherches s'étant cependant concentrées dans la région de St Floris. On trouve plusieurs espèces de faune particulièrement importantes pour la conservation: rhinocéros noir Diceros bicornis (limité à moins d'une dizaine d'individus), éléphant d'Afrique Loxodonta africana, gazelle à front roux Gazella rufifrons (ici dans sa limite sud), léopard Panthera pardus, guépard Acinonyx jubatus, licaon Lycaon pictus, bec-en-sabot Balaeniceps rex et crocodile Crocodylus niloticus. On trouve des populations saisonnières nombreuses de pélicans Pelecanus (Pelecanus onocrotalus et P. rufescens) et de marabouts Leptoptilos crumeniferus, et le parc serait relativement important pour les oiseaux d'eau et de rivage, surtout les plaines d'inondation du nord.

4. ETAT DE PRESERVATION/CONSERVATION:

La gestion de ce site incombe à la Société MANOVA S.A., conformément à l'accord qu'elle a passé avec le gouvernement; le parc est certainement la région la mieux protégée du pays. La gestion est principalement axée sur la lutte contre le braconnage (avec le soutien de l'armée) et contre le pâturage sauvage dans les limites du parc. Il n'existe actuellement aucun plan de gestion.

La FAO a travaillé plusieurs années en République centrafricaine dans le but d'améliorer la gestion de la faune et de la flore sauvages, et a émis nombre de recommandations dans ce sens. Il en va de même de plusieurs projets entrepris par la suite.

L'activité humaine la plus préoccupante semble être le braconnage professionnel, dont sont victimes les grands mammifères, surtout le rhinocéros et l'éléphant. Le feu, souvent bouté par les éleveurs, les braconniers, les chasseurs et les gardes, est également une source de préoccupation sérieuse. Les braconniers, qui entrent dans le parc principalement par le Tchad et le Soudan, utilisent depuis peu de temps des armes automatiques, et plusieurs espèces déclinent sous la pression du braconnage. La situation serait en train de s'aggraver.

L'équipement dont disposent les gardiens du parc (un seul véhicule et quelques armes) est insuffisant, et le personnel se limite à un gardien chef et à cinq gardes (parfois aidés par l'armée et du personnel temporaire pour la lutte anti-braconnage).

5. RAISONS JUSTIFIANT LA DESIGNATION POUR LA LISTE DU PATRIMOINE MONDIAL:

Pour justifier la désignation du Parc national du Manovo-Gounda-St Floris en tant que bien du patrimoine mondial, le Gouvernement centrafricain a donné les raisons suivantes:

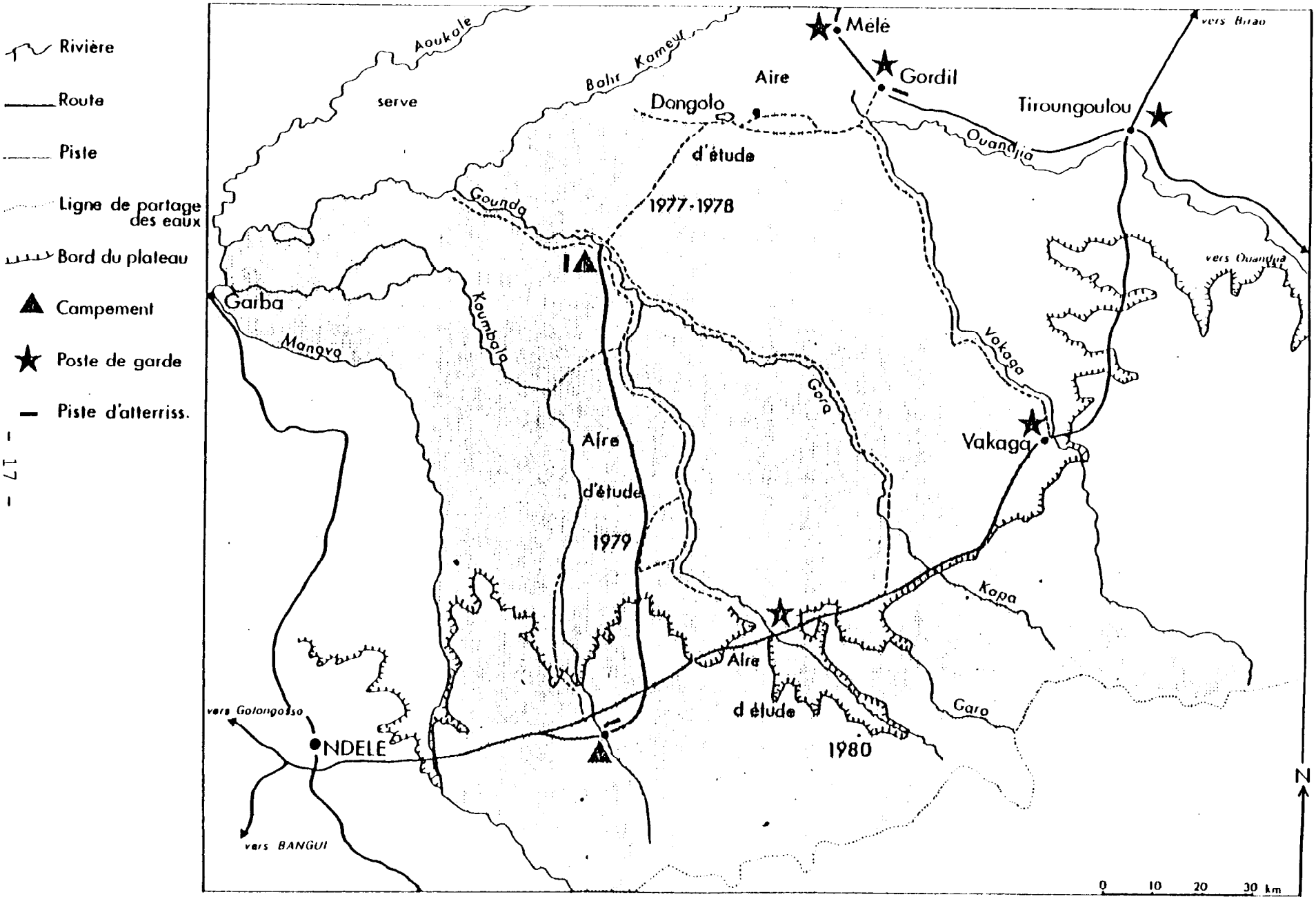
b) Bien naturel

(iii) Formations naturelles exceptionnelles. La zone couverte par le parc est suffisamment vaste pour inclure la totalité des bassins versants des trois rivières, et des portions considérables de biotopes comprenant des plaines d'inondation herbeuses, une variété de savanes arborisées, des bois, des zones humides associées aux rivières, et le massif de grès accidenté des Bango.

Le site est également suffisamment spacieux pour abriter des populations viables de différentes espèces typiques de cette partie de l'Afrique, et d'espèces originaires de l'Afrique orientale et occidentale.

(iv) Habitat d'espèces rares ou menacées. Non moins de huit espèces importantes du point de vue de la conservation vivent dans le parc, suffisamment vaste pour les entretenir.

PARC NATIONAL MANOVO, GOUNDA, ST FLORIS



DESIGNATION POUR LE PATRIMOINE MONDIAL - EVALUATION TECHNIQUE DE L'UICN

475 PARC NATIONAL DU MANOVO-GOUNDA-ST FLORIS (REPUBLIQUE CENTRAFRICAINE)

1. DOCUMENTATION:

i) Fiche de données de l'UICN

ii) Littérature consultée: UICN/PNUE 1987, Review of the Protected Areas System of the Afrotropical Realm

iii) Consultations: T. McShane, G. Sournia, P. Portas, E. Pironio, J.P. Thomassey, N. Donnet

iv) Visite du site: J. Sayer, UICN (juin 1988); T. McShane, WWF

2. COMPARAISON AVEC D'AUTRES AIRES:

Avec une superficie de 17 400 km2, le Parc national du Manovo-Gounda-St Floris (PNMGF) est le parc de savane le plus étendu de l'Afrique occidentale et centrale. Il comprend, du sud au nord, des portions de la zone de transition guinéo-congolienne, du centre régional soudanais d'endémisme et de la zone de transition sahélienne. Le PNMGF abrite des peuplements importants de forêt sèche, gravement menacés par le brûlis, ainsi qu'une forêt-galerie. Aucune autre aire protégée de la zone de savane d'Afrique centrale et occidentale ne comporte des habitats aussi variés. Etant donné sa situation unique, le PNMGF constitue une importante zone de transition pour la flore et la faune de l'Afrique occidentale et orientale et des espèces de la zone de forêt tropicale, par les couloirs de forêt-galerie, au sud,

Parmi les sites comparables d'Afrique occidentale, il faut citer le Parc national de Comoe, en Côte d'Ivoire et le Parc national de Niokolo-Koba, au Sénégal, tous deux inscrits sur la Liste du patrimoine mondial; le Parc national de Bamingui-Bangoran, en République centrafricaine (réserve de la biosphère); et le Parc national "W" du Niger, du Burkina Faso et du Bénin, ainsi que celui de Penjari, au Bénin, qui ne figurent pas sur la Liste. Il existe d'autres parcs de savane, tous plus petits et abritant une faune appauvrie.

Le PNMGF ne le cède en rien aux deux biens de savane africains inscrits sur la Liste du patrimoine mondial. Il est plus étendu, abrite une flore diversifiée et de nombreuses espèces de mammifères. Il comprend des habitats plus nombreux et une flore et une faune plus diversifiées que le complexe de la biosphère de Bamingui-Bangoran. Il est plus étendu et plus diversifié que tous les autres parcs occupant le même biome d'Afrique centrale et occidentale.

Si plusieurs des écosystèmes de savane importants figurent sur la Liste du patrimoine mondial pour l'Afrique australe, orientale et occidentale, les savanes du nord de l'Afrique centrale en sont manifestement absentes. Du point de vue biologique, le PNMGF est le principal écosystème de ce type.

3. INTEGRITE:

Il y a une très faible densité de population autour du PNMGF et la demande de terres constitue une menace négligeable. L'histoire de l'hommme dans cette région a été principalement influencée par le fait qu'elle se trouve sur la frontière islamique. Au début de ce siècle, des marchands d'esclaves ont dépeuplé le nord-est de ce qui est aujourd'hui la République centrafricaine.

Les effets de ces razzias sont encore visibles de nos jours. L'agriculture, clairsemée, se limite aux abords du parc. Ce dernier est pratiquement entouré de réserves de faune et de zones de chasse gérées, qui constituent une zone tampon pour certaines utilisations des terres. Les localités les plus proches sont N'délé à l'ouest, Quadda au sud, Birao à l'est et Haraz-Mangueigne, Tchad, au nord.

Le parc figure depuis 1986 dans le Registre des aires protégées menacées, de l'UICN. Il est principalement menacé par:

- Premièrement, la chasse illégale. On possède de nombreuses données sur la chasse commerciale de l'éléphant, du rhinocéros noir et de la girafe. On estime que 75% de la population d'éléphants vivant dans le parc a disparu entre 1981 et 1984. La population de rhinocéros noirs est passée de 100 à 10 individus et celle de girafe a décliné. Il existe en outre une chasse à grande échelle pour la viande, destinée aux villes du Soudan, du Tchad et de la Réplique centrafricaine.

Une inspection conduite sur le terrain en janvier 1988 a montré que la chasse illégale était très répandue. Elle a notamment permis de voir des chasseurs (probablement soudanais) et des chameaux sur la rivière Gounda, au centre du PNMGF. D'autres investigations ont montré que 25 chameaux se seraient trouvés dans cette région, et que plus de 50 buffles et 100 kobs (Kobus kob) auraient été tués. Il semblerait que les chasseurs utilisent des armes automatiques. Les militaires français ont été alertés par la présence de Soudanais et ont réagi en amenant des troupes centrafricaines à Gordil, à la limite est du parc, ce qui a permis de saisir 20 chameaux et 42 sacs de viande.

Des discussions avec diverses personnes travaillant dans le PNMGF indiquent que la chasse et le décimage des populations animales se poursuivent. La guerre civile qui règne dans les pays voisins (Tchad et Soudan) a entraîné un trafic d'armes dans la région, impliquant Tchadiens, Soudanais et Centrafricains.

- Deuxièmement, les pâturages illégaux. La plupart sont utilisés par du bétail venu de la région de Nyala, au Soudan, et du Tchad. Généralement, le bétail entre dans le secteur de St Floris fin décembre ou début janvier, et repart en mai, c'est-à-dire qu'il y pâture durant la saison sèche. La présence de bétail dans le secteur de St Floris, qui n'est généralement pas contestée, s'explique surtout par l'effet combiné de la sécheresse et du surpâturage dans le nord. Les prairies pérennes cèdent la place à des plantes annuelles et à une végétation herbeuse, signe d'appauvrissement. La peste bovine, qui avait surtout décimé les populations de buffles, d'élands de Derby et de phacochères, n'a plus sévi dans la région depuis 1983/84. Certains bergers participent à la chasse illégale. Des efforts coordonnés sont nécessaires entre les ministères soudanais et centrafricains des Eaux et Forêts et de l'Elevage afin de diriger les troupeaux vers d'autres pâturages bien irrigués à l'extérieur du parc.

La partie sud du PNMGF est traversée par la Route Nationale 8, reliant N'délé à Birao et au Soudan. Bien que contrôlée à l'entrée du parc, cette route facilite l'accès. Une certaine forme de contrôle et de surveillance doit être exercée de manière rigoureuse pour lutter contre le braconnage et le transport de produits d'espèces sauvages, qui transite régulièrement par cette route. Il a été proposé de détourner la RN dans le cadre du projet CEE/FED.

La législation créant le PNMGF est bien documentée et assure une protection adéquate. La gestion du parc n'en est pas moins limitée et d'une efficacité sporadique, et le soutien gouvernemental (en termes de personnel et d'équipement) est minime. Il y a un conservateur et cinq gardes pour gérer une superficie totale de 17 400 km2. Ceux-ci restent confinés dans le camp de Manovo, à l'entrée ouest du parc, faute de moyens de transport et d'appui logistique. Il semble que le ministère des Eaux et Forêts et de la Chasse, de Pêche et du Tourisme, responsable de la conservation du parc, assure un appui direct limité.

Les armées française et centrafricaine ont, par le passé, participé à la lutte contre le braconnage, mais seulement de manière sporadique et à court terme. Il n'existe aucune présence militaire régulière dans la région, et on ne sait pas exactement de qui relèvent les militaires lorsqu'ils viennent travailler dans le parc. Il est préoccupant de constater que ces actions ne se font qu'à court terme.

Une société privée, Manovo S.A., qui possède une concession d'exploitation pour une durée de 20 ans, a été investie d'une certaine autorité et responsabilité en matière de gestion du tourisme et de la chasse surveillée. L'infrastructure touristique est en train d'être adaptée aux normes internationales et des investissements considérables sont en cours. Les activités de gestion sont limitées et consistent essentiellement à entretenir les pistes du parc, à faire du brûlis pour faciliter l'observation des animaux et à mener des opérations pour lutter contre le braconnage ou le pâturage sauvage. Une dizaine de gardes sont employés par l'organisation pour lutter contre le pâturage sauvage. Rien n'indique clairement que ces actions soient coordonnées avec l'organisme gouvernemental responsable de la PNMGF.

La CEE/FED vient également de lancer un projet important (27 millions de dollars) axé sur le parc. Parmi ses objectifs figurent, notamment, la réalisation de travaux pour améliorer la route/l'accès et le développement de la recherche et de l'infrastructure (création de logements et mise à disposition de personnel). Des actions anti-braconnage seront menées par des centrafricains travaillant pour ce projet. La phase initiale porte sur quatre ans, avec une prolongation prévue de 6 ans. Etant donné l'état actuel de la gestion du PNMGF, il faudrait au moins un projet décennal pour assurer un minimum de continuité. Il n'existe aucune coordination entre ce projet et Manovo S.A., mais celle-ci s'impose si l'on veut établir un programme de gestion efficace.

Les projets de conservation entrepris jusqu'à présent dans le PNMGF (UNDRO/FAO,FAC,WWF,AWF) n'ont que très peu amélioré la capacité de gestion à long terme. Le projet FAC/Peace Corps a néanmoins publié des données écologiques de base intéressantes. Si l'on désire que les projets en cours soient véritablement durables, il faudra que certains changements institutionnels aient lieu au niveau du gouvernement et des projets eux-mêmes.

4. COMMENTAIRES ADDITIONNELS:

La désignation décrit avec précision la situation du PNMGF, souligne son importance biologique et donne des renseignements sur les problèmes (braconnage, pâturage illégaux, etc.) Les problèmes de gestion du parc, dont la chasse et les pâturages illégaux ne sont que des symptômes, décrits de manière un peu floue dans la désignation, sont présentés plus en détail dans la présente évaluation.

5. EVALUATION:

Du point de vue biologique, le PNMGF occupe vraisemblablement l'écosystème de savane le plus important d'Afrique centrale et occidentale et abrite des éléments de flore menacée (forêts sèches et forêts-galeries étendues), ainsi qu'une faune très riche. Il est le plus grand parc de savane de la région et constitue un lien important entre le réseau des parcs de savane africains, qui s'étend d'est en ouest, à travers la ceinture de savane septentrionale. C'est un exemple intéressant de "carrefour", où se rencontrent les espèces des communautés de savane de l'Afrique orientale et occidentale et des communautés de forêt du sud. Le PNMGF constitue également un champ précieux pour l'étude des changements environnementaux qui se produisent dans l'ensemble des régions sahélienne et soudanaise sous la pression de la sécheresse et du surpâturage. Nous pouvons donc dire que le PNMGF répond aux critères (ii) et (iv) du patrimoine mondial, et mérite d'être inscrit sur la Liste.

La gestion du parc doit absolument être améliorée si l'on veut assurer sa viabilité à long terme. Les projets en cours, axés sur le tourisme et le développement de l'infrastructure, offrent une telle possibilité mais il importe que le gouvernement joue un rôle plus actif.

6. RECOMMANDATION:

Comme nous l'avons souligné plus haut, l'intégrité du parc est très préoccupante, bien que celui-ci satisfasse à deux critères du patrimoine mondial. De plus, la politique d'exploitation de ce site par un concessionnaire privé n'est pas claire. Il est fort probable que l'intégrité du parc s'améliore grâce au projet de subvention de la CEE, qui reste toutefois à mettre en oeuvre.

L'UICN recommande que l'examen de cette désignation soit renvoyé en attendant (1) des précisions sur le rôle de la société privée exploitant la réserve, et (2) des rapports sur les progrès de l'exécution du projet de la CEE visant à restaurer l'intégrité du parc et à en améliorer le système de gestion.